What is claimed is:

1. A wireless transmitting method for forming a wireless network using a plurality of communicating devices, to carry out asynchronous transmission of information characterized by comprising the steps of

building a monopayload packet having one of predetermined information units of the information as a data payload,

constituting a multipayload packet having a plurality of predetermined information units of the information as a data payload, and

carrying out the asynchronous transmission by wireless packet obtained by optionally combining the monopayload packet with the multipayload packet depending on the length of the information to be asynchronously transmitted by wireless.

2. The wireless transmitting method according to claim 1, characterized in that a predetermined preamble is added to form a wireless packet to each packet of the monopayload packet or the multipayload packet to form a wireless packet.

3. The wireless transmitting method according to claim 1, characterized in that common header information is added to the monopayload packet and the multipayload packet and the header information is decoded to make the state of succeeding data payload packets decidable by a communicating station of destination.

4. The wireless transmitting method according to claim 1, characterized in that the number of predetermined information units included in the multipayload packet is described as common header information in the multipayload packet so that the number of continuous information units can be specified.

5. The wireless transmitting method according to claim 1, characterized in that sequence number added to the monopayload packet and the multipayload packet is obtained by adding the number for each increase in the information unit included in the packet.

6. The wireless transmitting method according to claim 1, characterized in that an error detection code or an error correction code is added to the monopayload packet and the multipayload packet by said information unit for transmission, and retransmission is required for each information unit having an error.

7. A wireless transmitting method for carrying out information transmission between a plurality of communication stations, characterized by comprising the steps of

carrying out wireless transmission control by an access control signal sent from a control station, and

transmitting said access control signal utilizing a wireless packet with only common header information having no data payload portion.

8. The wireless transmitting method according to claim

7, characterized in that a predetermined preamble is added to each packet to form a wireless packet and the wireless transmission is carried out utilizing the packet.

9. A wireless transmitter for forming a wireless network to carry out asynchronous transmission of information by using a plurality of communicating devices characterized by comprising

dividing means for dividing asynchronous information to be transmitted by wireless into corresponding information units,

monopayload packet building means for building a monopayload packet having one of predetermined information units as a data payload,

multipayload packet building means for building a multipayload packet having a plurality of predetermined information units as a data payload,

header adding means for adding header information describing the type of payload packet to the monopayload packet and the multipayload packet, and

wireless packet building means for building a wireless packet by optionally combining the monopayload packet with the multipayload packet depending on the length of the asynchronous information to be transmitted by wireless,

and in that the asynchronous transmission is carried out by the wireless packet.

10. The wireless transmitter according to claim 9, characterized by comprising

41

preamble adding means for adding a predetermined preamble to the monopayload packet and multipayload packet, and

access control means for carrying out wireless transmission control using the preamble information by an access control signal sent from a control station,

and in that the wireless packet is transmitted by wireless using the access control means.

11. The wireless transmitter according to claim 9, characterized by comprising

receiving means for receiving an access control signal sent from a control device of the wireless network,

access control signal decoding means for decoding the access control signal, and

deciding means that the relevant access control signal is for his own station,

and in that the wireless transmission of the wireless packet is started using the deciding means.

12. A wireless transmitter for forming a wireless network to carry out asynchronous transmission of information by using a plurality of communicating devices characterized by comprising

receiving means for receiving a predetermined preamble,

header decoding means for decoding header information added to the preamble,

header analyzing means for deciding whether or not there

is succeeding payload portions after the header information and the type of payload based on the header information, and

payload decoding means for decoding the payload portion as asynchronous information.

13. A wireless transmitter for forming a wireless network to carry out asynchronous transmission of information by using a plurality of communicating devices, characterized by comprising

header building means for building header information based on an access control signal sent from a control station for carrying out wireless transmission control by the access control signal,

access control packet building means for adding a predetermined preamble to the head information to build an access control packet, and

carrier detecting means for detecting information transmitted on a wireless transmission path,

and in that the access control packet is transmitted depending on the state of the wireless transmission path.